AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-010 Purpose. ((~~(1)~~)) The purpose of this chapter is to ((~~set forth the procedures and practices applicable to the injection of fluids through wells.~~

~~(2) Permits issued in accordance with the provisions of this chapter are designed:~~

~~(a) To satisfy~~)) protect ground water quality by:

(1) Preventing ground water contamination by regulating the discharge of fluids into Underground Injection Control (UIC) wells; and

(2) Satisfying the intent and requirements of Part C of the Federal Safe Drinking Water Act (SDWA) ((~~42 U.S.C. § 300h et seq. as authorized by RCW 43.21A.445~~)) and ((~~of~~)) the Washington state Water Pollution Control Act, chapter 90.48 RCW((~~; and~~

~~(b) To preserve and protect ground waters, including underground sources of drinking water, for existing and future beneficial uses~~)).

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-020 Policy ((~~enunciated~~)). (1) ((~~It shall be~~)) The policy of the department of ecology ((~~in carrying out the purposes of~~)) for this chapter is:

(a) To ((~~maintain the highest possible standards to prevent the injection of fluids that may endanger ground waters which are obtainable for beneficial uses or which contain fewer than 10,000 mg/L of total dissolved solids~~)) preserve and protect ground waters by preventing the injection of fluids that will endanger ground water;

(i) That contains fewer than 10,000 mg/L of total dissolved solids and is obtainable for beneficial uses as defined in WAC 173-218-030;

(ii) That contains greater than 10,000 mg/L of total dissolved solids and is obtainable for beneficial uses if the practices meet the requirements of this chapter;

(b) To require the use of all known, available, and reasonable methods ((~~to prevent and control the discharge of fluids and waste fluids into the waters of the state;~~

~~(c) To protect public health and welfare through preservation and protection of the quality of the state's ground~~

~~waters~~)) of prevention, control and treatment (AKART) to the discharge of fluids and waste fluids into the waters of the state as authorized by RCW 90.48.010; and

(c) To prohibit the injection of fluids through wells except as authorized by this chapter.

(2) Consistent with this policy((~~:~~

~~(a)~~)), the disposal of ((~~waste~~)) fluids from industrial, commercial, or municipal sources, or multifamily dwellings, into wells will ((~~not~~)) be authorized by the department, ((~~except that existing operations are authorized~~)) providing these operations satisfy ((~~the standards and requirements of~~)) this chapter((~~;~~

~~(b) The department will act to prevent the disposal of waste fluids that present a risk to human health, including the potential, chronic effects of lifetime exposure to waste fluids~~)) and are in compliance with local, state, and federal laws.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-030 Definitions. ((~~(1) "Beneficial uses" shall include, among others, uses for domestic water, irrigation, fish, shellfish, game, and other aquatic life, municipal, recreation, industrial water, generation of electric power, and navigation.~~

~~(2) "Class I injection well" means a well used to inject industrial, commercial, or municipal waste fluids beneath the lowermost formation containing, within 1/4-mile of the well bore, an USDW.~~

~~(3) "Class II injection well" means a well used to inject fluids:~~

~~(a) Brought to the surface in connection with conventional oil or natural gas exploration or production and may be commingled with wastewaters from gas plants which are an integral part of production operations, unless those waters are classified as dangerous wastes at the time of injection;~~

~~(b) For enhanced recovery of oil or natural gas; or~~

~~(c) For storage of hydrocarbons which are liquid at standard temperature and pressure.~~

~~(4) "Class III injection well" means a well used for extraction of minerals, including but not limited to the injection of fluids for:~~

~~(a) In-situ production of uranium or other metals that have not been conventionally mined;~~

~~(b) Mining of sulfur by Frasch process; or~~

~~(c) Solution mining of salts or potash.~~

~~(5) "Class IV injection well" means a well used to inject dangerous or radioactive waste fluids.~~

~~(6) "Class V injection well" means all injection wells not included in Classes I, II, III, or IV.~~

~~(7) "Dangerous waste" means any discarded, useless, unwanted, or abandoned nonradioactive substances, including but not limited to certain pesticides or any residues or containers of such substances, which are disposed of in such quantity or concentration as to pose a substantial present or potential hazard to human health, wildlife, or the environment because such wastes or constituents or combinations of such wastes:~~

~~(a) Have short-lived, toxic properties that may cause death, injury, or illness or have mutagenic, tertogenic, or carcinogenic properties; or~~

~~(b) Are corrosive, explosive, flammable, or may generate pressure through decomposition or other means (Hazardous Waste Disposal Act, chapter 70.105 RCW).~~

~~(8) "Department" means department of ecology.~~

~~(9) "Fluid" means any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.~~

~~(10) "Ground waters" means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of this state, whatever may be the geological formation or structure in which such water stands or flows, percolates, or otherwise moves (Regulation of public ground waters, chapter 90.44 RCW).~~

~~(11) "Injection well" means a "well" that is used for the subsurface emplacement of fluids.~~

~~(12) "New injection well" means an injection well that is proposed subsequent to the effective date of this chapter.~~

~~(13) "Person" includes any political subdivision, local, state, or federal government agency, municipality, industry, public or private corporation, partnership, association, firm, individual, or any other entity whatsoever.~~

~~(14) "Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 Code of Federal Regulations Part 20, Appendix B, Table II, Column 2.~~

~~(15) "SDWA" means Part C of the Federal Safe Drinking Water Act, 42 U.S.C. § 300f et seq.~~

~~(16) "Underground source of drinking water (USDW)" means ground waters which contain fewer than 10,000 mg/L of total dissolved solids or which are obtainable for beneficial uses.~~

~~(17) "Waste fluid" means any discarded, abandoned, unwanted, or unrecovered fluid(s), except the following are not waste fluids for the purposes of this chapter:~~

~~(a) Discharges into the ground or ground water of return flow, unaltered except for temperature, from a ground water heat pump used for space heating or cooling: Provided, That such discharges do not have significant potential, either individually or collectively, to affect ground water quality or beneficial uses;~~

~~(b) Discharges of stormwater that are not contaminated or potentially contaminated by industrial or commercial sources.~~

~~(18) "Well" means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension.~~)) **"Abandoned well"** means a well that is unused, unmaintained, or is in such disrepair as to be unusable.

"AKART" is an acronym that means all known, available and reasonable methods of prevention, control and treatment. AKART shall represent the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants associated with a discharge. The concept of AKART applies to both point and nonpoint sources of pollution. The term "best management practices" typically applies to nonpoint source pollution controls, and is considered a subset of the AKART requirement. The storm water management manuals (see definition in this section) may be used as a guideline, to the extent appropriate, for developing best management practices to apply AKART for storm water discharges.

"Aquifer" means a geologic formation, group of formations or part of a formation capable of yielding a significant amount of ground water to wells or springs.

"Beneficial uses" mean uses of the waters of the state which include, but are not limited to, use for domestic, stock watering, industrial, commercial, agricultural, irrigation, mining, fish and wildlife maintenance and enhancement, recreation, generation of electric power and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state.

"Best management practices" mean approved physical, structural, and/or managerial practices that, when used singularly or in combination, prevent or reduce pollutant discharges.

"Cesspool" means a drywell that receives untreated sanitary waste containing human excreta, and that sometimes has an open bottom and/or perforated sides that discharge to the subsurface.

"Commercial business" means a type of business activity that may distribute goods or provide services, but does not involve the manufacturing, processing or production of goods.

"Contaminant" means any chemical, physical, biological, or radiological substance that does not occur naturally in ground water or that occurs at concentrations greater than those found naturally.

"Contamination" means introduction of a contaminant.

"Dangerous waste" means those solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. As used in chapter 173-303 WAC, Dangerous waste regulations, the words "dangerous waste" will refer to the full universe of wastes regulated by chapter 173-303 WAC.

"Decommission" means to fill or plug a UIC well so that it will not result in an environmental or public health or safety hazard, nor serve as a channel for movement of water or pollution to an aquifer.

"Department" means department of ecology.

"Dispersion" means the release of surface and storm water runoff from a drainage facility system such that the flow spreads over a wide area and is located so as not to allow flow to concentrate anywhere upstream of a drainage channel with erodible underlying granular soils.

"Drywell" means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

"Existing well" means a well that is in use at the adoption date of this chapter.

"Fluid" means any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

"Ground water" means water in a saturated zone or stratum beneath the surface of land or below a surface water body.

"Ground water protection area" means a geographic area that is by or close by a surrounding community and nontransient noncommunity water system, that uses ground water as a source of drinking water (40 CFR 144.87) and other sensitive ground water areas critical to protecting underground sources of drinking water from contamination; such as sole source aquifers, highly productive aquifers supplying private wells, critical aquifer recharge areas and/or other state and local areas determined by state and local governments.

"Hazardous substances" mean any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6) or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous substance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42 U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment.

"High threat to ground water" means, for this chapter, a

UIC well is a high threat to ground water when it receives fluids that cannot meet the criteria in chapter 173-200 WAC Water quality standards for ground waters of Washington (GWQS) at the top of the aquifer, which include, but are not limited to, the following examples: A UIC well that receives drainage, that has not been pretreated and does not meet the GWQS; such as, from an area where storm water comes into contact with a vehicle fueling area, airport deicing activities, storage of treated lumber or vehicle washing; or a UIC well that receives a discharge that is determined to be an imminent public health hazard by a legal authority or is prohibited in this chapter.

"Improved sinkhole" means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings that has been modified by man for the purpose of directing and emplacing fluids into the subsurface.

"Infiltration pond" means an earthen impoundment used for the collection, temporary storage and infiltration of incoming storm water runoff.

"Infiltration trench" means a trench used to infiltrate fluid into the ground, is generally at least twenty-four inches wide and backfilled with a coarse aggregate. Perforated pipe or a product with similar use may also be installed.

"Industrial wastewater" means water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feedlots, poultry houses or dairies. The term includes contaminated storm water and leachate from solid waste facilities.

"Motor vehicle waste disposal well" means a Class V injection well that is typically a shallow disposal system that receives or has received fluids from vehicular repair or maintenance activities such as auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shops or any facility that does any vehicular repair work (40 CFR 144.81).

"New injection well" means an injection well that is put in use following the adoption date of this chapter.

"Nonendangerment standard" means to prevent the movement of fluid containing any contaminant into the ground water if the contaminant may cause a violation of the Water quality standards for ground waters of the state of Washington, chapter 173-200 WAC or may cause health concerns.

"Nonpollution-generating surface" means a surface considered to be an insignificant source of pollutants in storm water runoff and/or a surface not defined as a pollution-generating surface.

"Person" means any political subdivision, local, state, or federal government agency, municipality, industry, public or private corporation, partnership, association, firm, individual, or any other entity whatsoever.

"Point of compliance" means the location where the facility must be in compliance with chapter 173-200 WAC Water quality standards for ground waters of the state of Washington; the top of the aquifer, as near to the source as technically, hydrogeologically, and geographically feasible.

"Pollution" means contamination or other alteration of the physical, chemical, or biological properties of waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state as will, or is likely to, create a nuisance or render such waters harmful, detrimental, or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

"Pollution-generating surfaces" mean the surfaces are considered a significant source of pollutants in storm water runoff. Pollution generating surfaces include pollution generating pervious surfaces and pollution generating impervious surfaces such as surfaces that are subject to: Regular vehicular use, industrial activities, or storage of erodible or leachable materials that receive direct rainfall, or the run-on or blow-in of rainfall, use of pesticides or fertilizers or loss of soil; or leaching such as from metal roofs not coated with an inert, nonleachable material, roofs that are subject to venting of manufacturing, commercial, or other indoor pollutants. Examples of commercial indoor pollutants are commercial facilities such as restaurants where oils and other solid particles are expected to be expelled. It does not include normal indoor air venting at commercial facilities where activities such as cooking, processing, etc., do not take place. Examples are: Roads, unvegetated road shoulders, bike lanes within the traveled lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, airport runways, lawns, and landscaped areas that apply pesticide applications; such as golf courses, parks, cemeteries, and sports fields except for landscaped areas that are approved infiltrative best management practices.

"Proper management of storm water" means AKART has been provided or the well owner has demonstrated that the discharge will meet the nonendangerment standard.

"Radioactive waste" means any waste which contains radioactive material in concentrations that exceed those listed in 10 Code of Federal Regulations Part 20, Appendix B, Table II,

and Column 2.

"Retrofit" means taking actions to reduce the pollutant load from a UIC well to meet the statutory requirements of 40 CFR 144.12 and RCW 90.48.010. These actions may include, but are not limited to: Changes to the source control activities and/or structures around the well; an upgrade to the well such as adding a catch basin or spill control device; and/or addition of pretreatment facilities or decommissioning. The selection of actions is based on local priorities, required by the department or the local jurisdiction to address a documented water quality problem.

"Rule authorized" means a UIC well that is registered with the department and meets the nonendangerment standard. If a well is rule authorized, it does not require a state waste discharge permit from the department.

"Sanitary waste" means liquid or solid wastes originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these wastes may include single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds, day-use recreation areas, other commercial facilities, and industrial facilities provided the waste is not mixed with industrial waste.

"Septic system" means a well that is used to discharge sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system. (Also called on-site sewage system.)

"State waste discharge permit" means a permit issued in accordance with chapter 173-216 WAC, State waste discharge permit program.

"Storm water" means the portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes and other features of a storm water drainage system into a defined surface water body, or a constructed treatment, evaporation, or infiltration facility.

"Storm water manuals" mean the *Stormwater Management Manual for Eastern or Western Washington* or other manuals approved by the department.

"Storm water pollution prevention plan" means a documented plan to implement measures to identify, prevent, and control the contamination of storm water and its discharge to UIC wells.

"Subsurface fluid distribution system" means an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

"Underground source of drinking water" means ground waters that contain fewer than 10,000 mg/L of total dissolved solids and/or supplies drinking water for human consumption.

"UIC well" or **"underground injection control well"** means a well that is used to discharge fluids into the subsurface. A UIC well is one of the following: (1) A bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension; (2) an improved sinkhole; or (3) a subsurface fluid distribution system.

"Waste fluid" means any fluid that cannot meet the nonendangerment standard at the point of compliance, which is the top of the aquifer.

"Well assessment" means an evaluation of the potential risks to ground water from the use of UIC wells. A well assessment includes information such as the land use around the well which may affect the quality of the discharge and whether the UIC well is located in a ground water protection area. It may include the local geology and depth of the ground water in relation to the UIC well if the well is considered a high threat to ground water.

"Well injection" means the subsurface emplacement of fluids through a well.

"You" means the owner or operator of the UIC well.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-040 ((~~Authorization required.~~)) UIC well classification including allowed and prohibited wells. ((~~No fluids may be injected through wells except as authorized pursuant to this chapter.~~)) The most common type of UIC well in Washington is a Class V well. A Class V well is usually a shallow disposal well such as a drywell, drainfield or French drain (see subsection (5) of this section).

(1) "Class I injection well" means a well used to inject dangerous and/or radioactive waste, beneath the lowermost formation containing an underground source of drinking water within one-quarter mile of the well bore. All Class I wells are prohibited in Washington and must be decommissioned.

(2) "Class II injection well" means a well used to inject fluids:

(a) Brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production. It may be mixed with wastewaters from gas plants that are an integral part of production operations, unless those waters are classified as hazardous wastes at the time of

injection;

(b) For enhanced recovery of oil or natural gas; or

(c) For storage of hydrocarbons that are liquid at standard temperature and pressure.

(3) "Class III injection well" means a well used for extraction of minerals. All Class III wells are prohibited in Washington and must be decommissioned. Examples of Class III injection wells include, but are not limited to, the injection of fluids for:

(a) In situ production of uranium or other metals that have not been conventionally mined;

(b) Mining of sulfur by Frasch process; or

(c) Solution mining of salts or potash.

(4) "Class IV injection well" means a well used to inject dangerous or radioactive waste into or above an underground source of drinking water. Class IV wells are prohibited and must be decommissioned except for Class IV wells reinjecting treated ground water into the same formation from where it was drawn as part of a removal or remedial action if such injection is approved by EPA in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act or the Resource Conservation and Recovery Act, 40 CFR 144.13(c). Other examples of Class IV wells include:

(a) Dangerous or radioactive waste into or above a formation that contains an underground source of drinking water within one quarter mile of the well. This includes disposal of dangerous waste into a septic system or cesspool regardless of the size; or

(b) Dangerous or radioactive waste that cannot be classified as a Class I well type or (a) of this subsection.

(5) "Class V injection well" means all injection wells not included in Classes I, II, III, or IV. Class V wells are usually shallow injection wells that inject fluids above the uppermost ground water aquifer. Some examples are dry wells, French drains used to manage storm water and drain fields.

(a) The following are examples of Class V injection wells that are allowed in Washington:

(i) Drainage wells used to drain surface fluids, primarily storm water runoff, into or below the ground surface, such as, but not limited to, a drywell or infiltration trench containing perforated pipe;

(ii) Heat pump or cooling water return flow wells used to inject water previously used for heating or cooling;

(iii) Aquifer recharge wells used to replenish the water in an aquifer;

(iv) Salt water intrusion barrier wells used to inject water into a fresh water aquifer to prevent the intrusion of salt water into the fresh water;

(v) Septic systems serving multiple residences or

nonresidential establishments that receive only sanitary waste and serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day;

(vi) Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a nonoil or gas producing zone to reduce or eliminate subsidence associated with the removal of fresh water;

(vii) Injection wells associated with the recovery of geothermal energy for heating, aquaculture and production of electric power;

(viii) Injection wells used in experimental technologies;

(ix) Injection wells used for in situ recovery of lignite, coal, tar sands, and oil shale;

(x) Injection wells used for remediation wells receiving fluids intended to clean up, treat or prevent subsurface contamination;

(xi) Injection wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts;

(xii) Injection wells used to control flooding of residential basements;

(xiii) Injection wells used for testing geologic reservoir properties for potential underground storage of natural gas or oil in geologic formations; if the injected water used is of equivalent or better quality than the ground water in the targeted geologic formation and the ground water in the targeted geologic formation is nonpotable and/or toxic because of naturally occurring ground water chemistry; and

(xiv) Injection wells used as part of a reclaimed water project as allowed under a permit.

(b) The following are examples of Class V wells that are prohibited in Washington:

(i) New and existing cesspools including multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes that have an open bottom and may have perforated sides that serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day. The UIC requirements do not apply to single family residential cesspools or to nonresidential cesspools which receive solely sanitary waste and have the capacity to serve fewer than twenty persons a day or an equivalent design capacity of less than 3,500 gallons per day;

(ii) Motor vehicle waste disposal wells that receive or have received fluids from vehicular repair or maintenance activities (see definition of motor vehicle waste disposal wells in WAC 173-218-030). UIC wells receiving storm water located at vehicular repair, maintenance or dismantling facilities shall not be considered waste disposal wells if the wells are protected from receiving vehicle waste;

(iii) Wells used for solution mining of conventional mines such as stopes leaching;

(iv) Backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined out portions of subsurface mines whether what is injected is a radioactive waste or not;

(v) UIC wells receiving fluids containing hazardous substances (see definition for hazardous substances in WAC 173-218-030) except for wells:

(A) Allowed under (a)(x) of this subsection; or

(B) Receiving storm water that meets the nonendangerment standard by applying the best management practices and requirements in WAC 173-218-090 or storm water authorized under a permit; and

(vi) UIC wells receiving industrial wastewater except for industrial wastewater authorized under a permit.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-050 ((~~Class I injection wells.~~)) Exemptions from UIC well status. ((~~(1) New Class I injection wells are prohibited.~~

~~(2) All persons operating an existing Class I injection well operation must apply to the department for approval to operate within one year of the effective date of this chapter.~~

~~(3) The department will accept, process, and act upon the application in accordance with applicable requirements as contained in 40 Code of Federal Regulations Parts 124 and 144 as published in Federal Register Volume 48, #64 (April 1, 1983) and Part 146 as published in Federal Register Volume 45, #123 (June 24, 1980), Volume 46, #166 (August 27, 1981) and Volume 47, #23 (February 3, 1982).~~)) The following are not considered UIC wells and are not regulated under this chapter.

(1) Single-family residential septic systems, handling only sanitary wastes and have the capacity to serve less than twenty people per day or an equivalent design capacity of less than 3,500 gallons per day;

(2) Nonresidential septic systems and cesspools handling only sanitary wastes and have the capacity to serve less than twenty people per day or an equivalent design capacity of less than 3,500 gallons per day;

(3) Any dug, blasted or drilled hole, bored shaft that is not used for the subsurface placement of fluids in accordance with 40 CFR 144.1 (g)(1)(ii);

(4) Infiltration ponds, dispersion systems, or infiltration

trenches that do not contain perforated pipe; or

(5) Storm drain components that contain perforated pipes, drain tiles or other similar mechanisms designed and intended to convey water directly or indirectly to a surface water body.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-060 ((~~Class II injection wells.~~)) Requirements to operate a UIC well. ((~~(1) Any person, who proposes to conduct or is conducting a Class II injection well operation, as defined in WAC 173-218-030 (3)(a), must notify the oil and gas conservation committee (OGCC) in accordance with the provisions of general rules, chapter 344-12 WAC.~~

~~(2) The department shall perform review, evaluation, and approval in accordance with the provisions of general rules, chapter 344-12 WAC.~~

~~(3) The department shall process a Class II injection well application, as defined in WAC 173-218-030 (3)(a), in accordance with applicable requirements as contained in 40 Code of Federal Regulations Parts 124 and 144 as published in Federal Register Volume 48, #64 (April 1, 1983) and Part 146 as published in Federal Register Volume 45, #123 (June 24, 1980), Volume 46, #166 (August 27, 1981) and Volume 47, #23 (February 3, 1982).~~

~~(4) At present, there appears to be no reasonable likelihood that approval will be sought for a Class II injection well for either enhanced recovery of oil or natural gas or for storage of liquid hydrocarbons; therefore, Class II injection wells as defined in WAC 173-218-030 (3)(b) and (3)(c) are not authorized. If it appears likely that approval will be sought for either of these types of injection wells, these regulations will be amended to include an appropriate regulatory program.~~)) To operate an existing or new UIC well in Washington, the UIC well must be registered and either rule authorized or receive a state waste discharge permit from the department to operate, except as noted below, and the following must be met:

(1) Class I UIC wells are prohibited and must be decommissioned.

(2) Class II UIC wells must be registered and have a state waste discharge permit issued by the department to operate, and the following must occur:

(a) The well must be reported to the department of natural resources in accordance with the provisions of chapter 344-12 WAC General rules by any person who proposes to conduct or is conducting a Class II injection well operation, as defined in chapter 173-218 WAC;

(b) The department of natural resources will perform review, evaluation, and approval in accordance with the provisions of chapter 344-12 WAC General rules; and

(c) The department of ecology will process a Class II injection well application, in accordance with applicable requirements as contained in 40 Code of Federal Regulations Parts 124 and 144 as published in Federal Register Volume 48, #64 (April 1, 1983) and Part 146 as published in Federal Register Volume 45, #123 (June 24, 1980), Volume 46, #166 (August 27, 1981) and Volume 47, #23 (February 3, 1982).

(3) Class III UIC wells are prohibited and must be decommissioned.

(4) Class IV UIC wells that are not prohibited (see WAC 173-218-040) must be registered and approved under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA), 40 CFR 144.13(a)(4)(c). Approved Class IV UIC wells are wells used at:

(a) CERCLA sites conducting a cleanup under an EPA order, consent order or consent decree or where the cleanup is being conducted by EPA; or

(b) RCRA sites conducting a cleanup under an order, agreed order or consent decree.

(5) Class V UIC wells, except as noted below, must be registered and either rule authorized (see WAC 173-218-070) or receive a state waste discharge permit issued by the department to operate including wells used in independent remedial actions under MTCA. The following Class V wells do not need a permit but do have to register with the UIC program if they are authorized in accordance with:

(a) CERCLA conducting a cleanup under an EPA order, consent order or consent decree or where the cleanup is being conducted by EPA; and

(b) RCRA or MTCA conducting a cleanup under a MTCA order, agreed order or consent decree or where the cleanup is being conducted by the department.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-070 ((~~Class III injection wells.~~)) Rule authorization and registration. ((~~At present, there appears to be no reasonable likelihood that approval will be sought for a Class III injection well; therefore, Class III injection wells are not authorized. If it appears likely that approval will be sought for a Class III injection well, these regulations will be amended to include an appropriate regulatory program.~~)) In order to receive rule authorization, your well must meet the nonendangerment standard (see WAC 173-218-080 and 173-218-090) and must be registered with the department unless otherwise noted below. If your UIC well is rule authorized, it does not need a state waste discharge permit to operate. Rule authorization can be rescinded if a UIC well no longer meets the nonendangerment standard of this chapter.

(1) Registering your UIC well:

(a) The UIC well owner or operator must register the UIC well with the department and the wells only need to be registered once. Registration forms are available for single and multiple sites and can be found on the department's web site at http://www.ecy.wa.gov/programs/wq/grndwtr/uic. When completing the form, the following information must be included:

(i) Operator/owner information;

(ii) Site location;

(iii) Best management practices used to protect ground water quality;

(iv) UIC well description;

(v) Other information the department determines is necessary to meet the nonendangerment standard.

(b) Owners of UIC wells used to manage storm water must:

(i) Complete a well assessment for existing wells (see WAC 173-218-090) except for UIC wells authorized for use at CERCLA facilities; and

(ii) Provide to the department an annual update on any well status changes, such as a change in the legal owner or if the well has been closed, after the initial well registration is sent to the department.

(c) Owners of existing UIC wells that are not used for storm water management must complete a survey provided by the department except for wells in WAC 173-218-100 and UIC wells authorized for use at CERCLA facilities.

(d) UIC wells on tribal land must be registered with the Environmental Protection Agency, Region 10. Tribal land means

the land within Indian reservations and federal land located off-reservation which is held in trust for Indians, unless specifically delegated by EPA.

(e) UIC wells at single-family homes that only receive residential roof runoff, or are used to control basement flooding, do not have to register with the department.

(f) Septic systems that serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day that receive operating permits, meet the requirements and are permitted in accordance with chapter 246-272B WAC Large on-site sewage system regulations will be registered after the Washington state department of health provides to the department:

(i) Registration information for all systems with valid operating permits as of the effective date of this chapter; and

(ii) Annual updates on newly permitted systems and closed systems.

(g) The following types of Class V UIC wells that require an associated permit still need to register with the department:

(i) Aquifer recharge wells that meet the requirements and are permitted in accordance with chapter 173-157 WAC Underground artificial storage and recovery;

(ii) Septic systems that serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day that meet the requirements and are permitted in accordance with chapter 246-272A WAC On-site sewage systems;

(iii) UIC wells used for geothermal fluid return flow into the same aquifer and that meet chapter 173-200 WAC Water quality standards for ground waters of the state of Washington and chapter 173-216 WAC State waste discharge permit program requirements; and

(iv) UIC wells that are used as part of a reclaimed water project that meet the requirements of the water reclamation and reuse standards as authorized by RCW 90.46.042.

(2) The department will determine if the UIC well is rule authorized based on the information provided in the registration packet and will take one of the following actions within sixty days:

(a) Provide written notification that your UIC well is registered and rule authorized;

(b) Contact you or conduct a site visit if additional information is needed;

(c) Provide written notification if rule authorization of your UIC well is denied. The denial letter will include one of the following:

(i) Written notification that improvements to your on-site practices are needed to meet the nonendangerment standards for rule authorization;

(ii) Written notification indicating that you must

decommission the UIC well (see WAC 173-218-120); or

(iii) Written notification indicating that you will have to apply for a state waste discharge permit to operate your UIC well under chapter 173-216 WAC State waste discharge permit program.

(d) If you do not hear from the department within sixty days, the well will be automatically registered.

(3) Class IV wells that are not prohibited (see WAC 173-218-040) are rule authorized, after the UIC well is registered, for the life of the well if such subsurface emplacement of fluids is authorized under the Comprehensive Environmental Response, Compensation, and Liability Act or the Resource Conservation Recovery Act, 40 CFR 144.23(c).

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-080 ((~~Class IV injection wells.~~)) The nonendangerment standard for UIC wells. ((~~Class IV injection wells are prohibited regardless of proximity to USDW.~~)) To meet the nonendangerment standard you must prevent the movement of fluid containing any contaminant into the ground water if the contaminant may cause a violation of chapter 173-200 WAC Water quality standards for the ground waters of the state of Washington. In order to meet the nonendangerment standard, you must meet the following:

(1) Be in compliance with the following sections in RCW 90.48.010, 90.48.080, 90.48.160, 90.48.162, and 90.48.455;

(2) Be in compliance with chapter 173-200 WAC Water quality standards for ground waters of the state of Washington; such as, but not limited to, providing best management practices at the site that will fulfill the AKART requirement; and

(3) Be constructed, operated, maintained and decommissioned in a manner that protects ground water quality as described in 40 CFR 144.12(a).

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-090 ((~~Class V injection wells.~~)) Specific requirements for Class V wells to meet the nonendangerment standard. ((~~(1) All new Class V injection wells that inject industrial, municipal, or commercial waste fluids into or above an USDW are prohibited.~~

~~(2) All persons operating an existing Class V injection well, that inject industrial, commercial, or municipal waste fluids into or above an USDW, must apply to the department for approval to operate within one year of the effective date of this regulation. The department will accept, process, and act upon the application in accordance with the procedures and practices of the State waste discharge permit program, chapter 173-216 WAC.~~

~~(3) All other Class V injection well owners and operators must notify the department of the location of injection wells within one year of approval of the state underground injection control program by the United States Environmental Protection Agency. The notification shall be on a form as prescribed by the department and will include the information needed to satisfy the requirements of 40 Code of Federal Regulations Part 146.52.~~)) Specific requirements for Class V wells are organized by wells that are used for storm water management and wells that are used for other purposes. This section does not apply to the Class V wells in WAC 173-218-100.

(1) **New** Class V UIC wells used for **storm water management** must:

(a) Meet additional ground water protection area requirements as determined by other state laws or by local ordinances;

(b) Not directly discharge into ground water. A separation between the bottom of the well and the top of the ground water is required. The treatment capacity of the unsaturated zone or the zone where the fluid is discharged, and the pollutant loading of the discharge must be considered when determining the vertical separation; and

(c) The owner or operator of a new Class V well used to manage storm water must meet the nonendangerment standard as defined under WAC 173-218-080. The owner or operator of a new Class V well must show compliance with the nonendangerment standard prior to placing a new well into service. Compliance with the nonendangerment standard may be met through one or a combination of the following two approaches:

(i) Presumptive approach: The presumptive approach means compliance with the nonendangerment standard is presumed, unless discharge monitoring data or other site specific information shows that a discharge causes or contributes to a violation of chapter 173-200 WAC Water quality standards for ground waters of the state of Washington, when:

(A) The well activity is in compliance with this chapter; and either

(B) The well is designed and installed to the storm water manual current at the time of construction and is operated in conformance with storm water best management practices including the proper selection, implementation, and maintenance of all on-

site pollution control using the current storm water manual published by the department for your region or an equivalent department approved local manual.

(C) Owners or operators of municipal separate storm sewer systems regulated under section 1342(p) of the Federal Water Pollution Control Act which also own or operate Class V UIC wells may satisfy the presumptive approach by applying the storm water management programs developed to comply with the Federal Water Pollution Control Act to their new UIC wells. For new UIC wells, construction phase and postconstruction storm water controls must be applied in accordance with applicable storm water manuals.

(D) The presumptive approach may not be used when best management practices do not exist to remove or reduce a contaminant, the vadose zone has no treatment capacity and/or the storm water quality is such that a best management practice does not exist to reduce or eliminate the concentration.

(ii) Demonstrative approach: The demonstrative approach means that the technical bases for the selection of storm water best management practices are documented. The documentation must include:

(A) The method and reasons for choosing the storm water best management practices selected;

(B) The pollutant removal performance expected from the practices selected;

(C) The technical basis supporting the performance claims for the practices selected, including any available existing data concerning field performance of the practices selected;

(D) An assessment of how the selected practices will satisfy the requirements of WAC 173-218-080 and chapter 173-200 WAC; and

(E) An assessment of how the selected practices will satisfy state requirements to use all known, available, and reasonable methods of prevention, control and treatment.

(2) **Existing** Class V UIC wells used for **storm water management** do not have to meet the new well requirements. If the UIC wells are not already registered, the owner or operator must register the wells with the department and complete a well assessment. The following timelines must be met unless otherwise approved from the department:

(a) If you own or operate less than or equal to fifty wells:

(i) You have three years after the adoption date of this rule to register your UIC wells unless an extension has been approved by the department;

(ii) You have five years after the adoption date of this rule to complete a well assessment. The approach to conducting the well assessment will be determined by the owner. The well assessment evaluates the potential risks to ground water from

the use of UIC wells and includes information such as the land use around the well which may affect the quality of the discharge and whether the UIC well is located in a ground water protection area. It may include the local geology, and depth of the ground water in relation to the UIC well if the well is considered a high threat to ground water. The well assessment requirements will be met if an owner or operator applies the storm water best management practices contained in a guidance document approved by the department to their UIC wells and determines if the UIC well is located in a ground water protection area;

(iii) Any well assessment that identifies a well as a high threat to ground water must include a retrofit schedule; and

(iv) You must immediately take action to correct the use of a well that is determined to be an imminent public health hazard, for example when a drinking water supply is contaminated and causes a public health emergency. The department must be notified within thirty days from the determination and may determine a retrofit schedule. The department's enforcement procedure (see WAC 173-218-130) will be followed when a retrofit schedule is needed.

(b) If you own or operate more than fifty wells:

(i) You have five years after the adoption date of this rule to register your UIC wells unless an extension has been approved from the department;

(ii) You have seven years after the adoption date of this rule to complete a well assessment. The approach to conducting the well assessment will be determined by the owner. The well assessment evaluates the potential risks to ground water from the use of UIC wells and includes information such as the land use around the well which may affect the quality of the discharge, and whether the UIC well is located in a ground water protection area. It may include the local geology, and depth of the ground water in relation to the UIC well if the well is considered a high threat to ground water. The well assessment requirements will be met if an owner or operator applies the storm water best management practices contained in a guidance document approved by the department to their UIC wells and determines if the UIC well is located in a ground water protection area;

(iii) Any well assessment that identifies a well as a high threat to ground water must include a retrofit schedule; and

(iv) You must immediately take action to correct the use of a well that is determined to be an imminent public health hazard, for example when a drinking water supply is contaminated and causes a public health emergency. The department must be notified within thirty days from the determination and may establish a retrofit schedule. The department's enforcement procedure will be followed when a retrofit schedule is needed.

(c) If you own or operate a site that uses, stores, loads, or treats hazardous substances or is an industrial facility that has a Standard Industrial Classification as regulated by Federal Regulations, 40 CFR Subpart 122.26(b)(14) (excluding construction sites), you may use the following to satisfy the documentation requirements for meeting the nonendangerment standard:

(i) If the facility has or will have a waste water discharge permit issued pursuant to chapter 90.48 RCW, including a National Pollutant Discharge Elimination System (NPDES) permit, the associated storm water pollution prevention plan may be used in place of the well assessment to meet the nonendangerment standard provided the storm water pollution prevention plan specifically addresses storm water discharges to UIC wells; or

(ii) For unpermitted facilities, the preparation and implementation of a storm water pollution prevention plan can be used in place of the well assessment to meet the nonendangerment standard if applied to the UIC wells or documentation must be provided to show that the well does not pose a threat to ground water. Examples of documentation include, but are not limited to, a site drainage map for the UIC wells or a no-exposure certification form completed for discharges to ground.

(d) Owners or operators of municipal separate storm sewer systems regulated under section 1342(p) of the federal Water Pollution Control Act which also own or operate Class V UIC wells may satisfy the nonendangerment standard by applying the storm water management programs developed to comply with the federal Water Pollution Control Act to their UIC wells. For existing UIC wells receiving new sources of storm water, construction phase and post-construction storm water controls must be applied to all development and redevelopment projects in accordance with applicable storm water manuals.

(3) Class V UIC wells **not** used for **storm water management:**

(a) **New** UIC wells that are **not** used for storm water management must:

(i) Not directly discharge into an aquifer, except for wells listed in WAC 173-218-040 (5)(a)(ii) through (iv), (vii) through (xi), (xiii) and (xiv). A separation between the bottom of the well and the top of the aquifer is required; and

(ii) Meet additional ground water protection requirements if the UIC well is located in a ground water protection area (see WAC 173-218-030) as determined by other state laws or by local ordinances.

(b) **Existing registered** UIC wells that are **not** used for storm water management are already considered to be rule authorized. To verify that current site practices are protective of ground water quality, the owner or operator must complete a survey from the department except for UIC wells used

at CERCLA sites. The department will provide written notification that the current site practices are adequate.

(c) **Existing** UIC wells that are **not registered** and **not** used for storm water management must meet the requirements for new wells.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-100 ((~~Permit terms and conditions.~~)) UIC wells that automatically meet the nonendangerment standard. ((~~(1) Any permit issued by the department shall specify conditions necessary to prevent and control injection of fluids into the waters of the state, including the following, whenever applicable:~~

~~(a) All known, available, and reasonable methods of prevention, control, and treatment;~~

~~(b) Applicable requirements as contained in 40 Code of Federal Regulations Parts 124 and 144 as published in Federal Register Volume 48, #64 (April 1, 1983) and Part 146 as published in Federal Register Volume 45, #123 (June 24, 1980), Volume 46, #166 (August 27, 1981) and Volume 47, #23 (February 3, 1982); and~~

~~(c) Any conditions necessary to preserve and protect USDW.~~

~~(2) Any injection well that causes or allows the movement of fluid into an USDW that may result in a violation of any primary drinking water standard under 40 Code of Federal Regulations Part 141 or that may otherwise adversely affect the beneficial use of an USDW is prohibited.~~)) (1) The following new and existing Class V UIC wells automatically meet the nonendangerment standard and are considered rule authorized after the well is registered. These Class V wells are not subject to the requirements of WAC 173-218-090:

(a) UIC wells which inject fluids that meet chapter 173-200 WAC, Water quality standards for ground waters of the state of Washington, to control subsidence;

(b) UIC wells that temporarily inject fluids or other material for the purpose of maintaining a properly functioning water extraction well or dewatering well;

(c) Closed loop heating and cooling water return flow wells that have not added any chemicals or product to the water;

(d) Air conditioning or heat pump return flow wells that have not added any chemical or product to the water, and are used to return fluid to the supply aquifer. The fluids must not impair beneficial uses of ground water or surface water;

(e) Aquifer recharge wells that meet the requirements in

chapter 173-157 WAC Underground artificial storage and recovery;

(f) UIC wells used as part of a reclaimed water project that meet the requirements of the Water reclamation and reuse standards as authorized by RCW 90.46.042;

(g) Septic systems that serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day; and

(i) Receive operating permits, meet the requirements and are permitted in accordance with chapter 246-272B WAC Large on-site sewage system regulations; or

(ii) Meet the requirements of chapter 246-272A WAC On-site sewage systems.

(h) UIC wells receiving storm water from nonpollution generating surfaces; and

(i) UIC wells that only receive runoff from a roof coated with an inert, nonleachable material and a roof that is not subject to venting of manufacturing, commercial, or other indoor pollutants.

(2) The following Class V UIC wells automatically meet the nonendangerment standard, are considered rule authorized and are exempt from registering:

(a) UIC wells used in residential settings that receive water from sump pumps, for basement flood control; and

(b) UIC wells that only receive runoff from a residential roof.

AMENDATORY SECTION (Amending Order DE 84-02, filed 2/29/84)

WAC 173-218-110 ((~~Enforcement.~~)) Permit terms and conditions if a UIC well is not rule authorized. ((~~(1) For violations of this chapter, the department shall have the remedies available in the Water Pollution Control Act, chapter 90.48 RCW, and all other applicable statutes.~~

~~(2) All injection well operations not operated in accordance with the provisions of this chapter, that cause or tend to cause entry of fluids into the waters of the state as a result of a violation of these provisions, constitutes pollution of the waters of the state in violation of RCW 90.48.080.~~)) If you are denied rule authorization and you are operating a UIC well, you must obtain a state waste discharge permit under chapter 173-216 WAC State waste discharge permit program or chapter 173-226 WAC Waste discharge general permit program or close the well.

(1) Permit terms and conditions must meet the requirements of chapter 173-216 or 173-226 WAC and this chapter.

(2) All injection activities including construction of an injection well are prohibited until the well is rule authorized or issued a permit 40 CFR 144.31 (October 4, 2001).

NEW SECTION

WAC 173-218-120 Decommissioning a UIC well. (1) Decommissioning standards for all UIC wells:

(a) Wells must be decommissioned in a manner that prevents movement of fluid containing any contaminant into the ground water (40 CFR 144.82); and

(b) When decommissioning wells, the owner or operator must dispose or otherwise manage any soil, gravel, sludge, liquids or other materials removed from or adjacent to the wells in accordance with all applicable federal, state, and local requirements (40 CFR 144.82b).

(2) Decommissioning standards for UIC wells that are determined to be an imminent public health hazard or prohibited:

(a) Class I wells are prohibited and must be decommissioned in accordance with 40 CFR 146;

(b) Class III wells are prohibited and must be decommissioned in accordance with 40 CFR 146;

(c) Class IV wells that are prohibited must be decommissioned in accordance with 40 CFR 144, 146; or

(d) Class V wells that are determined to be an imminent public health hazard or are prohibited in this rule must be decommissioned at the earliest extent possible as approved by the department and meet the decommissioning standards, except for:

(i) Existing cesspools that serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day must be decommissioned immediately (40 CFR 144.88); and

(ii) Motor vehicle waste disposal wells must be decommissioned immediately.

(3) Decommissioning standards for allowed UIC wells:

(a) Class II wells must meet the closure requirements found in chapter 344-12 WAC General rules;

(b) Class V wells must be decommissioned by filling or plugging the well so that it will not result in an environmental, public health or safety hazard, and will not serve as a channel for movement of water or pollution to an aquifer:

(i) UIC wells that are in contact with an aquifer, even if they are in contact with only the seasonal high aquifer, must be decommissioned in accordance with the most applicable method

found in chapter 173-160 WAC Minimum standards for construction and maintenance of wells; or

(ii) UIC wells that are not in contact with an aquifer must be decommissioned by:

(A) Removing any structure within three feet of the land surface;

(B) Backfilling up to three feet below the land surface with material that is uncontaminated, chemically and biologically inert, and that drains equal to or more slowly than the native material surrounding the UIC well; and

(C) Filling the remaining three feet directly below the land surface with native soil or other structurally sound material common with current engineering practices.

(c) Septic systems that receive only sanitary waste and serve twenty or more people per day or an equivalent design capacity of 3,500 gallons or larger per day must be decommissioned in accordance with chapter 246-272B WAC Large on-site sewage system regulations or chapter 246-272A WAC On-site sewage systems;

(d) The department may require additional measures to those above prior to the decommissioning of a UIC well if such measures are deemed necessary to protect the public health and safety.

(4) Decommissioning recordkeeping requirements for UIC wells:

(a) The owner or operator of a Class I, II, III, or IV well must notify the department thirty days prior to decommissioning the UIC well;

(b) An owner or operator of a Class V well that is determined to be an imminent public health hazard or that is prohibited must notify the department thirty days prior to decommissioning the well (40 CFR 144.88); or

(c) After adoption of this rule, an owner or operator of a Class V well that is determined not to be an imminent public health hazard and is not prohibited must notify the department within one year of the closure except for existing UIC wells used for storm water management and septic systems that are permitted and meet the requirements of chapter 246-272B WAC Large on-site sewage system regulations. The owner or operator must submit to the department, on an annual basis, an update on the wells that have been decommissioned, once the initial well registration(s) has been sent to the department.

NEW SECTION

WAC 173-218-130 Enforcement. (1) For violations of this chapter, the department shall rely upon the provisions of the Water Pollution Control Act, chapter 90.48 RCW, and all other applicable statutes.

(2) All injection well operations not operated in accordance with the provisions of this chapter, that cause or tend to cause entry of fluids into the waters of the state as a result of a violation of these provisions, constitutes pollution of the waters of the state in violation of RCW 90.48.080.